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Schlumberger

Assistant Commissioner for Patents
Box CPA
Washington, DC 20231

Docket No.: 24.0787-D1
Total Pages: 2
First Named Inventor: Bruno Luong et al.

CONTINUED PROSECUTION APPLICATION (CPA) REQUEST TRANSMITTAL

This is a request for a ☐ continuation or ☒ divisional application under 37 CFR 1.53(d), (Continued Prosecution Application (CPA)) of prior application number 09/033,965 filed on March 3, 1998 entitled *Method and Apparatus for a 1 of N Signal*.

- 1 ☐ Enter the unentered amendment previously filed on _____ under 37 CFR 1.116 in the prior nonprovisional application.
- 2 ☒ A preliminary amendment is enclosed. (2 pp.)
- 3 ☐ This application is filed by fewer than all the inventors named in the prior application, 37 CFR 1.53(d)(4).
- a. ☐ Delete the following inventor(s) named in the prior nonprovisional application:
- b. ☐ The inventor(s) to be deleted are set forth on a separate sheet attached hereto.
- 4 ☐ Information Disclosure Statement (IDS) is enclosed:
- a. ☐ PTO-1449
- b. ☐ Copies of IDS Citations.
- 5 ☐ A new power of attorney or authorization of agent (PTO/SB/81) is enclosed.
- 6 ☐ Other _____

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INDEPENDENT CLAIMS	3-3=		x\$80	
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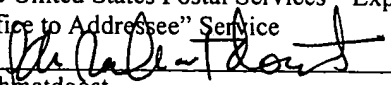
Please send all correspondence to the following correspondence address: Office of Patent Counsel, Schlumberger Oilfield Services, P.O. Box 2175, Houston, TX 77252-2175. Our Customer Service No. is 23718.

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Respectfully Submitted,

Signature: 

Name: Brigitte L. Jeffery

Reg. No. 38,925

Date: Apr. 1 24, 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
Bruno Luong, et al.)	Attorney Docket No.: 24.0787-D1
Serial No.:)	Group Art Unit: 2862
Filed:)	Examiner: L. Arana
Title:)	
NUCLEAR MAGNETIC RESONANCE)	
APPARATUS AND METHOD FOR)	
GENERATING AN AXISYMMETRIC)	
MAGNETIC FIELD HAVING STRAIGHT)	
CONTOUR LINES IN THE RESONANCE))	
REGION)	

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, DC 20231

Dear Sir:

Prior to examining the present application, the Applicant requests that the Examiner enter the following amendment:

In the Specification:

On page 1, please insert --This is a division of U. S. Patent Application Serial No. 09/033,965 filed March 3, 1998. --

In The Claims:

Please cancel claims 13-42.

Please add the following claims:

--43. An apparatus for generating a magnetic field, comprising:

a) a drilling means for drilling a borehole into the formation;

- b) a means for carrying drilling fluid through the drilling means;
- c) a measuring means, connected to the drilling means, for making nuclear magnetic resonance measurements while the borehole is being drilled, the measuring means comprising:
 - i) a means for producing a plurality of axisymmetric static magnetic fields through the drilling means and into the formation at a plurality of regions of investigation such that the contour lines generated by the static magnetic fields are substantially straight in the axial direction at a depth of investigation where the nuclear magnetic resonance measurements are obtained, comprising:
 - a) an axially magnetized upper magnet;
 - b) an axially magnetized central magnet;
 - c) an axially magnetized lower magnet;
 - ii) an antenna for producing an oscillating magnetic field in the formation;

wherein the upper magnet and central magnet generate a static magnetic field having a high gradient at a first region of investigation.

44. The apparatus of claim 43 wherein the lower magnet and central magnet generate a static magnetic field having a high gradient at a second region of investigation.

45. The apparatus of claim 43 wherein the lower magnet and central magnet generate a static magnetic field having a low gradient at a second region of investigation. --

Respectfully submitted,

Date: April 23, 2001

By: Brigitte L. Jeffery

Brigitte L. Jeffery

Registration N° 38,925

Schlumberger Technology Corporation
200 Gillingham Lane
Sugar Land, Texas 77478
(281) 285-7067

Date: April 24, 2001

Attorney Docket No.: 24.0787-D1

On the date stamped hereon, the following was received in the United States Patent Office:

Application papers of: Bruno Luong et al.

Title: Nuclear Magnetic Resonance Apparatus and Method for Generating an Axisymmetric Magnetic Field having Straight Contour Lines in the Resonance Region

Serial No.: _____

- 1) *Continued Prosecution Application (CPA) Request Transmittal & duplicate (2 pp.)*
- 2) *Preliminary Amendment (2 pp.)*
- 3) *Authorization to charge Deposit Account*

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